## **REMARKS**

Claims 1-14 were presented for examination. By the aforementioned Office Action, Claims 1, 7 and 14 were rejected under 35 U.S.C. 102. In addition, Claims 1-14 were rejected under 35 U.S.C. 103(a).

By this Amendment, Claims 1, 7, 8 and 14 have been amended, and Claims 5 and 12 have been cancelled, leaving Claims 1-4, 6-11 and 13-14 pending. Support for amended Claims 1, 7, 8 and 14 can be found in page 12 line 29 to page 13 line 7 and page 13 lines 27-32 of the specification, and original claims 5, 12. No new matter has been added. Reconsideration of the present application as amended is respectfully requested for the reasons set forth below.

## 1. Claim Rejections Under 35 U.S.C. 103

Claims 1-4, 6-11 and 13-14 were rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al (US Patent No. 5,535,317) in view of Blades et al (US Patent No. 5,990,888).

Claims 5 and 12 were also rejected under 103(a) as being unpatentable over Tanaka et all in view of Blades et al, and further in view of Purcell, Jr. (US Patent No. 5,727,161).

Currently amended Claim 1 recites the steps for demonstrating an interrelationship between different representations of a mathematical relationship to include defining a mathematical equation, displaying at least two representations of the mathematical equation with a graphical representation as one of the two representations, manipulating the graphical representation, and processing the manipulation to update the other of the two representations accordingly. Manipulation mechanisms available for manipulating the graphical representation include shifting a graph of the graphical representation with respect to a set of coordinate axes, and shrinking or stretching the graph with respect to a particular point in a coordinate plane.

Applicant submits that the teachings of Tanaka, Blades and Purcell, Jr., whether taken alone or in combination, fail to disclose nor even suggest that

manipulation mechanisms available for manipulating the graphical representation of the mathematical equation include shifting a graph of the graphical representation with respect to a set of coordinate axes, and shrinking or stretching the graph with respect to a particular point in a coordinate plane, as recited in Claim 1.

In page 6 of the Office Action, the Examiner states that Purcell, Jr. teaches the translating and dilating of a graph with respect to a set of coordinate axes. The applicant respectfully disagrees, and submits that Purcell, Jr. only teaches the changing of the axis-range and grid increment of the axes of the graph (i.e. the graph lines) according to the data ranges and increments specified by an user (see col. 29 lines 59-60). Fig. 24 of Purcell, Jr. shows a window for the user to specify the data ranges and grid increments, and Fig. 25 shows an example of the graph having "graph lines [which] have been developed and delivered anew for these new ranges" (col. 30 lines 3-4). Accordingly, the teaching of Purcell, Jr. is different from the manipulating mechanisms recited in Claim 1.

Therefore, the subject matters of Claim 1, and Claims 2-4, 6 dependent thereof, is non-obvious, and hence, patentable over Tanaka in view of Blades and Purcell, Jr.

The subject matters of Claims 7, 8 and 14 are similar to that of Claim 1, and thus, are also non-obvious and patentable over Tanaka in view of Blades and Purcell, Jr. Accordingly, the subject matters of Claims 9-11 and 13 being dependent on Claim 8 are thus also non-obvious and patentable over Tanaka in view of Blades and Purcell, Jr.

## 2. Claim Rejections Under 35 U.S.C. 102

Claims 1, 7 and 14 were rejected under 35 U.S.C. 102(b) as being anticipated by Blades et al. (US Patent No. 5,990,888).

Applicant submits that Blades fails to disclose that manipulation mechanisms available for manipulating the graphical representation of the mathematical equation include shifting a graph of the graphical representation with respect to a set of coordinate axes, and shrinking or stretching the graph with respect to a particular point in a coordinate plane, as recited in the currently amended Claim 1.

Accordingly, the subject matters of Claims 1, 7 and 14, are novel over Blades.

## 3. Conclusion

For the foregoing reasons, the Applicant respectfully requests the Examiner to allow the pending Claims 1-4, 6-11 and 14, and to issue a Notice of Allowance for the present application.

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